U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Coastal Protection and Restoration Division
c/o EPA Region X (ECL-117)
1200 Sixth Avenue
Seattle, Washington 98101

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Eric Blischke
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Dear Chip and Eric:

This letter provides **NOAA's comments on EPA's proposed TRVs for mercury, endrin, hexachlorocyclohexane (HCH) and lindane. NOAA was unable to review the derived TRVs for bis(2-ethylhexyl) phthalate, butylbenzyl phthalate, di-n-butyl phthalate, and hexachlorobutadiene in the time allotted, hence we have no comments on these compounds at this time**. The NOAA team involved in developing this response to EPA includes Nancy Beckvar and Rob Neely of the NOAA Office of Response and Restoration, James Meador of the NOAA Northwest Fisheries Science Center, and Bob Dexter of Ridolfi, Inc. NOAA appreciates EPA's efforts in developing TRVs for fish and invertebrate tissue at the site. We recognize that this is a challenging and complex endeavor. Because of the challenging schedule, please also recognize that our comments on these and other compounds represent our best effort under the circumstances, which have generally limited our ability to conduct thorough reviews.

NOAA Comments on Proposed TRV for Mercury

*/*Stizostedion vitreum*/** (Walleye)*

Friedman et al. (1996) – This study should be included and noted that viscera were removed. The removal of viscera should not significantly impact residues since methylmercury was the form used and accumulates primarily in muscle tissue, and not in the gut, i.e. if the gut had been included the residues would not be significantly different.

The value from Boudou and Ribeyre 1984 greatly affects the mean for rainbow trout mortality. We were unable to locate the paper to check the value of 11.2 ppm, but the paper is in the library at NOAA/Sand Point (Boudou A, Ribeyre F. 1984. Influence of exposure

length on the direct bioaccumulation of two mercury compounds by Salmo gairdneri (fry) and the relationship between organism weight and mercury concentrations. Water Research 18:81-86.) We recommend that the value be checked.

Handy (2005) (note that the date, listed as 1995, is actually 2005). The mortality value for fathead minnow at 0.37 ppm for 7 percent mortality appears to be a valid response and the value that should be selected from this study for the TRV derivation. Because the control mortality was 0 percent, any mortality in the treatments would be statistically significant. Applying the ACR to this value yields a value of 0.045 ppm, which is the value that should be used in the SSD.

The decision to exclude this paper based on the statement "since 7 percent mortality is within the limits of generally accepted control mortality in acute studies, this level was not assumed to be sufficiently high for defining a LOER" appears to be arbitrary, unsupported and irrelevant for this study.

Birge et al. (1979) and Radoux and Bouquegneau (1979) were not available for review. Please provide these papers.

NOAA Comments on Proposed TRV for Endrin

Schimmel et al. (1975). The mortality value for *P. pugio* at 0.07 ppm for 7 percent mortality appears to be a valid response and the value that should be selected from this study for the TRV derivation. Because the control mortality was 0 percent, any mortality in the treatments would be statistically significant. Applying the ACR to this value yields a value of 0.0084 ppm, which is the value that should be used in the SSD.

NOAA would like a reassessment of the SLERA for fish and believe that a separate fish TRV for endrin should be developed. The NOAEL value of 0.025 ppm for the SLERA is higher than reported responses for fish. The Jarvinen and Ankley (1999) database contains 3 studies showing mortality for fish ranging from 0.01 – 0.3 ppm. All of these values would be subjected to the ACR adjustment of 8.3 because they are mortality response. Note that the highest value of 0.3 was determined in a 24-hour acute exposure.

The Jarvinen and Ankley (1999) database identifies 12 studies with fish.

NOAA Comments on Proposed TRV for HCH

Without knowing the potency of each isomer, it is inappropriate to sum these concentrations.

Please explain why the study by Fisher (1985) was excluded. Fisher used radiolabelled lindane, which may be acceptable if no metabolites were formed or the author quantified the parent compound

NOAA Comments on Proposed TRV for Lindane

There are a number of papers listed in Jarvinen and Ankley (1999) that cite tissue-residue toxicity effects for fish that were not considered for this TRV calculation. NOAA requests an evaluation of these publications for development of the lindane TRV. While these studies do not report whole-body concentrations, they do report muscle concentrations, which can be compared to the concentrations observed in fish collected and analyzed from Portland Harbor.

Tooby TE., et al. 1975. Environ Poll. 8:79-89.
Macek KJ. 1976. USEPA 600/3-76/046
Marcelle C. et al. 1983. Bull Environ. Contam. Toxicol. 31 :453-458.

Citations

Fisher SW. (1985). Ecotox Environ. Safety 10:202-208

NOAA appreciates the opportunity to provide these comments. Please let us know if you have any questions or require further clarification on any of the information we have provided via this comment letter.

Sincerely,

Robert Neely
NOAA Regional Resources Coordinator

cc: Mary Baker, NOAA / NOS / ARD (by email)
Nancy Munn, NOAA / NMFS / HCD (by email)
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